



POSITION DESCRIPTION

LOCAL POSITION TITLE: Web Projects Manager

SUMMARY OF POSITION:

The Montana Natural Heritage Program (NHP) serves as the state's principle source for information on species, habitats and landscapes of conservation concern. The Web Projects Manager is responsible for leading the development and management of web services that deliver the NHP's extensive databases and other information resources to support resource management and environmental planning, as well as natural history education and recreation.

ESSENTIAL FUNCTIONS:

The Web Projects Manager is responsible for providing leadership in the overall development of the NHP's web presence, services and functions. This includes envisioning, designing, and delivering web applications that integrate database-to-web connectivity, interactive mapping, site security, and extensive graphics, as well as for the testing, monitoring and maintenance of those applications. S/he also provides expertise in developing and maintaining a variety of auxiliary databases and software applications. The Web Projects Manager is supervised by the Systems and Services Manager and is expected to supervise one or more programmers and/or contractors, as needed.

KNOWLEDGE/SKILLS:

- Undergraduate degree in computer science, information systems, computer engineering, or a very closely related field (or equivalent experience) and demonstrated proficiency in the management and presentation of biological or natural resource data.
- Four years progressively responsible experience, including project management, website development, installation, security and configuration, Web applications development, and the presentation of complex technical data. Familiarity with Natural Heritage Program methods and databases preferred.
- Demonstrated ability to provide programmatic leadership in website development and design to further organizational strategic priorities.
- Strong creative and organizational skills for web presentation and information design, including experience in presenting complex scientific information to technical and non-technical users.
- Demonstrated ability to design and implement complex, relational databases and the ability to link data from these databases with web applications and services. Experience with complex relational databases such as Oracle and SQL/Server. Ability to write data transfer scripts and to troubleshoot database and application connection problems.
- Demonstrated ability in web, database, and network development environments (e.g., JavaScript, HTML, VB/VBScript, SQL, C#, XML, ASP, .NET, Object Oriented Programming (OOP), CSS, and HTTP); Microsoft development technologies (VBA, C#, .NET, COM+); Microsoft development environments (Windows XP Professional, Visual Studio, current versions of SQL/Server, VS.NET); Object Oriented programming methodologies and concepts; code format and commenting practices

COMPLEXITY/PROBLEM SOLVING:

- Must resolve complex issues independently within program area. Experiments to find creative solutions.
- Work is diversified and regularly falls outside established practices and guidelines.
- Implements and manages multiple projects.

- Acts as a resource to others in utilizing technology to achieve programmatic objectives.
- Anticipates, analyzes and solves complex problems and contributes to team problem-solving and decision-making.
- Develops clear procedures, policies and system documentation when no standards or models exist.

DISCRETION/LATITUDE/DECISION-MAKING:

- Must exercise decision-making authority on significant technical and programmatic issues.
- Makes sound decisions based on analysis of information, experience, and judgment; identifies key stakeholders and gathers input from internal and external sources.

RESPONSIBILITY/OVERSIGHT –FINANCIAL & SUPERVISORY:

- Develops and implements project plans, manages multiple complex projects, and performs complex tasks within deadlines.
- Gains cooperation from individuals over whom there is no direct authority in order to accomplish program goals.
- Supervises staff and provides team leadership for web-focused projects or web-related components of major interdisciplinary projects.

COMMUNICATIONS/INTERPERSONAL CONTACTS:

- Serves as primary liaison with the State Library on information systems coordination and other technical issues.
- Communicates and works effectively with a wide range of persons, including scientists, public agency personnel and the interested public.
- Presents technical information and concepts effectively to diverse audiences.

WORKING CONDITIONS/PHYSICAL EFFORT:

- Work requires only minor physical exertion and/or physical strain. Work environment involves only infrequent exposure to disagreeable elements.
- Ability to work effectively under pressure and meet deadlines.

DUTIES SPECIFIC TO THE POSITION:

Application Development and Administration (55%) - Individually and in collaboration with others, develop plans and strategies for overall website development, and design, program, test and implement web applications, services, pages, and supporting software.

- Design and develop Internet and related applications that provide database interfaces, database-driven web pages, edit/entry, reporting functions and automate manual processes through system development and implementation.
- Design, develop, and maintain website templates to ensure they are functional, user-friendly, and reliable; ensure graphic consistency, ease of navigation, and optimum performance of websites for effective delivery of information; and ensure that web environments are properly maintained and managed to support user needs.
- Perform or coordinate web application testing to ensure that all applications function properly. When problems are reported, make changes to ensure system functions as anticipated. Integrate intelligent application tracking algorithms that will notify core support group in case of an application crash.
- Direct system implementation to move programs into production after management and user approval; determine potential impacts on other applications, assess time and resource requirements, coordinate with user community to minimize disruptions, and coordinate any database changes and conversions.

User support (20%) - Provide user support and coordinate or provide training to ensure proper system functioning and that users remain proficient with contemporary IT systems and related business processes.

- Develop user and technical documentation for system design, user training, technical programming, database models, and other system specifications. Develop and implement common procedures, policies, manuals, and data definitions for internally developed systems to ensure the accuracy and integrity of system functions and to improve and streamline program processes. Develop and implement on-line help tools and references.
- Provide problem resolution and support for Web and associated applications; respond quickly and appropriately to problem reports; resolve user problems and provide front and back end support for custom software; troubleshoot and debug problems and errors related to web applications and interfaces.

- Work with the Data Systems Coordinator to provide backup in the maintenance and operation of the Oracle-based BIOTICS Database. Provide occasional technical assistance to staff related to web and database design and development.
- Provide professional, analytical and technical guidance to partner agencies as requested by the Systems and Services Manager.

Project Management (20%)

- Develop project proposals, plans, budgets and implementation strategies. Ensure that work is completed according to commitment, plan, standards, guidelines, specifications, schedule, and budget.
- Perform requirement analysis and system definition to develop, enhance, or modify Internet-based applications and systems, identify issues critical to project feasibility, and prioritize and allocate project resources. Assess existing system resources and applications, internal and external software and hardware coordination needs, and external resources. Meet with users/cooperators, determine needs for system enhancement or modification (e.g., database changes, file allocations, application processes, etc.), and assess cost, staff time, and available resources to achieve system enhancements and modifications.
- Prioritize and develop application program writing and implementation sequences, and monitor and resolve problems. Assess and recommend changes in project plans; anticipate and resolve potential project problems and impediments; design efficient schedules to sequence project phases, deadlines, and milestones; and apprise the Systems and Services Manager, end users and others of project progress, design features, and new options and alternatives related to system development.
- Develop plans to provide requested services by analyzing needs, following system development life cycle methods, and applying knowledge and expertise.

Other duties (5%)

- Serve as principle liaison to the State Library for management of shared IT services and applications; represent programmatic IT needs & issues.
- Develop, maintain and administer auxiliary databases related to NHP web applications or needed to support web delivery of information.
- Hire and supervise programmers as needed and as funding allows; lead recruitments, obtaining scientific and management input, set staff objectives and manage performance.
- Represent the program at conferences, meetings, and other events as assigned by the Systems and Services Manager and maintain a contemporary knowledge of developments in the IT field.
- Keep current on emerging web and database technologies, assess their applicability to NHP and NRIS requirements, and make recommendations for new tools or capabilities as needed or appropriate.